Miniature Unmanned Air Vehicles

BRIGHAM YOUNG UNIVERSITY

CENTER

The main focus of the Center is the development of technologies to extend the capabilities of autonomous miniature air vehicles (AMAVs, also referred to as UAV's) and to license those technologies which are commercially viable. An AMAV may only be a couple of feet across and, with such a small size, AMAVs permit remote surveillance, information gathering and other functions that are either too expensive or dangerous with current technologies. The vision of the Center is to enable "anyone" to fly an AMAV, without complex skills, and to extend the abilities integrated into the AMAV to a wide variety of commercial applications.

TECHNOLOGY

The Center is advancing a variety of technologies crucial to this vision of the turnkey AMAV.

- Inexpensive turnkey AMAV – a fully integrated system
- Easy-to-use, intuitive user interfaces for non-pilot AMAV operation (including PDA based control)
- Pan and tilt camera gimbal system for AMAVs
- "Eye-on-Target" video surveillance, monitoring, and targeting with AMAVs
- AMAV with integrated synthetic aperture radar (SAR)
- Video image stabilization

ACCOMPLISHMENTS

Procerus Technologies of Vinyard, Utah is a major licensee of the Center and is in the second year of commercial shipments of UAV systems and components. The Center continues development of innovative new technologies of interest both to Procerus and to potential partners in other vertical markets. In addition, the Center continues to receive strong support from Federal, military and other funding sources.

THINK TANK

What if there was...

A way to fly a miniature plane over a chemical leak or forest fire in order to evaluate the damage or range of the disaster, and to do it using a handheld PDA as the control system?

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